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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,638

10/19/2006

Mitchell M. Jackson

3241-01

3878

26645

7590

12/02/2008

THE LUBRIZOL CORPORATION  
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EXAMINER

HINES, LATOSHA D

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

12/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,638	<b>Applicant(s)</b> JACKSON ET AL.	
	<b>Examiner</b> LATOSHA HINES	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/02/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This is the initial Office action based on the 10/595638 application filed on October 19, 2006.
2. Claims 1-16 are pending and have been fully considered.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are rejected because Claim 5 is directed to an additive composition and not to a polyisobutylene alkylated hydroxyaromatic compound.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:  
  
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over MALFER (US 5,725,612).

MALFER teaches a fuel composition, preferably gasoline, comprising a Mannich reaction product and a polyoxyalkylene carrier (see abstract). The

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Mannich reaction product is prepared by reacting a hydrocarbyl substituted hydroxyaromatic compound having a polyolefin and a C1-C4 alkyl substituent, an aldehyde (formaldehyde) and a polyamine, such as N,N-dimethylpropylenediamine (see col. 2, lines 30-57). The hydrocarbyl group of the hydroxy aromatic compound is a polyisobutylene (MW 500-3000) that has at least 70% vinylidene double bonds (see col. 3, lines 1-25, 48-56). MALFER does not explicitly state alpha- and beta- vinylidene groups. However, to obtain high vinylidene groups it is known in the art that alpha- and beta-vinylidenes are used therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention MALFER would have used alpha- and beta-vinylidenes. It would have been obvious to one of ordinary skill in the art to have combined the conventional polyisobutylenes of MALFER with the vinylindene polyisobutylenes of MALFER because it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the same purpose. *In re Kerkhoven*, 205 USPQ 1069.

MALFER teaches the additive components can be added or blended into or with the base fuels individually per se and/or as components used in forming preformed additive combinations and/or subcombinations. Likewise preformed additive concentrates, in which higher proportions of the additive components are blended together usually with one or more diluents or solvents, can be formed so that subsequently the concentrate can be blended with a base fuel in the course

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of forming the finished fuel composition (see col. 12 lines 7-15). The Mannich base products of this invention are preferably used in combination with a liquid carrier or induction aid. Such carriers can be of various types, such as for example liquid poly- $\alpha$ -olefin oligomers, liquid alcohols or polyols, liquid esters, and similar liquid carriers or solvents. Mixtures of two or more such carriers or solvents can be employed (see col. 5 lines 47-59). When formulating the fuel composition the Mannich product and carrier fluid (with or without other additives) are employed in amounts sufficient to reduce or inhibit deposit formation in an internal combustion engine. Thus the fuels will contain minor amounts of the Mannich base detergent/dispersant and of the liquid carrier fluid proportioned as above that control or reduce formation of engine deposits, especially intake system deposits, and most especially intake valve deposits in spark-ignition internal combustion engines (see col. 8 lines 48-60). The alkylation of the substituted hydroxyaromatic compound is typically performed in the presence of an alkylating catalyst such as  $\text{BF}_3$  at a temperature in the range of about 50 to about 200°C (see col. 3 lines 57-60). MALFER discloses the claimed invention except for explicitly stating a range of 5 to 40°C in the presence of an acidic alkylation catalyst. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the range 5 to 40°C, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

***Conclusion***

75. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LATOSHA HINES whose telephone number is 571-270-5551. The examiner can normally be reached on Monday thru Thursday from 8 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LATOSHA HINES/  
Examiner, Art Unit 1797

//Cephia D. Toomer//

Primary Examiner, Art Unit 1797